(Slip Opinion)

NOTICE: This opinion is subject to formal revision before publication. Readers are requested to notify the Environmental Appeals Board, U.S. Environmental Protection Agency, Washington, D.C. 20460, of any typographical or other formal errors, in order that corrections may be made before publication.

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re:	)	
Ross Incineration Services, Inc.	)	RCRA Appeal No. 93-3
Permittee	)	
Permit No. OHD 048 415 665	)	

[Decided April 21, 1995]

ORDER DENYING REVIEW

Before Environmental Appeals Judges Nancy B. Firestone, Ronald L. McCallum, and Edward E. Reich.

ROSS INCINERATION SERVICES, INC.

RCRA Appeal No. 93-3

ORDER DENYING REVIEW

Decided April 21, 1995

Syllabus

Ross Incineration Services, Inc. has appealed a Class II RCRA permit modification issued by EPA Region V. Ross sought the modification to incorporate a newly fabricated rotary kiln into its hazardous waste incinerator. Ross was required to conduct a trial burn to demonstrate, among other things, that operating the facility with the new rotary kiln will meet the metal emission standards at 40 C.F.R. § 266.106 in the regulations governing Boilers and Industrial Furnaces. At Ross' facility, metals and other hazardous waste can be fed into either the new rotary kiln or another combustion chamber called the "main chamber." Ross proposed a trial burn plan in which metals would be fed into the rotary kiln only, not into the main chamber. Under this proposal, the Region would establish a single system-wide set of metals feed rate limitations that would apply to both the kiln and the main chamber. Ross' proposal was based on the assumption that the kiln was the "worst feed location" for metals.

The Region approved Ross' proposed trial burn plan, but only on the condition that Ross demonstrate through the trial burn that the rotary kiln was in fact the worst feed location. The trial burn results, however, showed that the removal efficiency of the main chamber and the removal efficiency of the kiln are statistically equivalent. Based on these results, the Region concluded that Ross had not demonstrated that the kiln was the worst feed location. The Region, therefore, included a separate set of metal feed rate limitations in the permit for each combustion chamber (*i.e.*, the main chamber and the rotary kiln). On appeal, Ross argues that the Region's decision to include separate feed rate limitations for each chamber was clear error. It also argues that the methodology used by the Region to set metal feed rate limitations in the permit was defective and yielded permit limits that were overly restrictive in light of trial burn results.

Held: Ross has not carried its burden of demonstrating that the Region's decision to include the challenged permit limitations involves a clear error of fact or law or an exercise of discretion or policy consideration that warrants review. Review of Ross' petition is therefore denied.

Before Environmental Appeals Judges Nancy B. Firestone, Ronald L. McCallum, and Edward E. Reich.

Opinion of the Board by Judge McCallum:

On December 22, 1992, U.S. EPA Region V issued a Class II RCRA permit modification for a hazardous waste incinerator owned and operated by Ross Incineration Services, Inc. Before us now is Ross' petition for review, challenging the permit's hourly feed rate limitations for metals introduced into the incinerator. Ross sought the permit modification to incorporate a newly fabricated rotary kiln into its incineration process. Hazardous waste can be fed into either the new rotary kiln or another combustion chamber called the "main chamber." The Region included a separate set of metals feed rate limitations in the permit for each combustion chamber (*i.e.*, the main chamber and the rotary kiln). Ross, however, believes that a single system-wide set of metals feed rate limitations should have been applied to both the kiln and the main chamber. Ross also argues that the methodology used by the Region to derive the permit's metals feed rate limitations was defective and yielded permit feed limits that are too restrictive in light of the trial burn results. For the reasons set forth below, we conclude that Ross has not carried its burden of demonstrating that the Region's decision to include the challenged permit limitations involves a clear error of fact or law or an exercise of

discretion or policy consideration that warrants review. Review of Ross' petition is therefore denied.

I. *BACKGROUND*

To demonstrate that the operation of its facility with the new rotary kiln would not pose a threat to human health and the environment, Ross was required to conduct a trial burn. Pursuant to an agreement with EPA, Ross agreed to demonstrate through the trial burn that operation of the incinerator would comply with the regulations governing hazardous waste burned in Boilers and Industrial Furnaces at subpart H of part 266 ("BIF rule"). Section 266.106 of the BIF regulations prescribes feed rate and emissions screening rate limits for 10 toxic metals (antimony, barium, lead, mercury, silver, thallium, arsenic, cadmium, chromium, and beryllium). The owner or operator of a BIF facility must comply with these limits for any of the 10 metals that the facility's feedstream could reasonably be expected to contain. The emissions screening rate limits are implemented by limiting the feed rates of the individual metals to levels established during a trial burn. The stringency of the feed rates applicable to a facility will depend on how much site-specific testing and analysis (*e.g.*, emissions testing and dispersion modeling) the permittee is willing to perform. 56 Fed. Reg. 7171 (Feb. 21, 1991) (promulgation of final BIF regulations). The less testing and analysis the permittee elects to perform, the more restrictive the feed rates will be. There are three levels or "tiers" of testing and analysis that a permittee can choose from. Tier I, for example, requires the least testing and analysis, and imposes the most stringent feed rates, while Tier III requires the most testing and analysis and imposes the least stringent feed rates. [1] Compliance with the requirements of any one of the tiers is acceptable. *Id*. Ross sought to demonstrate compliance with the Tier III requirements through its trial burn.

---

[1] To demonstrate compliance with Tier I, the owner or operator need only analyze the waste. It need not perform emissions testing or dispersion modeling. The trade-off for such ease of compliance, however, is that the feed rate limits in the permit will be based on a worst-case dispersion scenario and on an assumption that all metals fed to the device will be emitted (as opposed to being partitioned to bottom ash or product or removed by pollution control equipment). 40 C.F.R. § 266.106(b); 56 Fed. Reg. 7171 (Feb. 21, 1991). Under Tier II, the owner or operator elects to conduct emissions testing, so the feed rate limits reflect the partitioning of metals to ash or product and the removal of metals from flue gas by the air pollution control system; however, the owner or operator does not conduct dispersion modeling, and reasonable, worst case dispersion is therefore assumed. 40 C.F.R. § 266.106(c); 56 Fed. Reg. 7171-7172 (Feb. 21, 1991). Under Tier III, the owner or operator conducts not only emissions testing but site-specific dispersion modeling as well to demonstrate that actual emissions do not exceed acceptable levels, in light of predicted dispersion. 40 C.F.R. § 266.106(d). 56 Fed. Reg. 7172 (Feb. 21, 1991).

As noted above, hazardous wastes can be fed into either the rotary kiln or the main chamber of Ross' facility. When wastes are burned in the rotary kiln, the resulting combustion gases flow first into the main chamber, then to the facility's pollution control equipment, and finally out the stack. Rather than have separate metals feed rate limitations for each chamber, Ross proposed that the Region develop system-wide metals feed rate limitations that would be applicable to both the kiln and the main chamber. To provide a basis for a single set of feed rate limitations, Ross proposed to operate the facility under "worst case" conditions during the trial burn. EPA guidance on BIF trial burns recognizes that:

> For most incinerator applications, it is desirable to select a single set of permit conditions to apply to all modes of incinerator operation. * * *.
>
> The preferable method for establishing the permit conditions under a universal approach is to conduct the test under worst-case conditions.

Guidance on Setting Permit Conditions and Reporting Trial Burn Results at 33 (January 1989). For a number of reasons, Ross believed that feeding metals into the kiln would result in higher metals emissions than feeding metals into the main chamber. In other words, worst case conditions would be achieved by feeding waste into the kiln rather than the main chamber. Ross argued, therefore, that it was not necessary to feed waste into the main chamber during the trial burn; system-wide feed rate limitations could be based solely on the results of feeding waste into the kiln.

The Region, however, did not share Ross' view that the kiln is the worst case feed location. The Region believed instead that the main chamber was the worst case feed location because it is closer to the stack than the kiln. Despite its reservations, the Region agreed to implement Ross's proposal, but only on the condition that Ross demonstrate through the trial burn that the kiln was indeed the worst case feed location. To make such a demonstration, Ross was required to feed chromium and lead into the main chamber on one day of the trial burn and then feed the same two substances into the kiln on another day of the trial burn. The metals removal efficiency of the system during the first day would then be compared with the metals removal efficiency of the system during the second day. The Region agreed that if the trial burn demonstrated that the kiln was in fact the worst feed location, then the main chamber would not need to be tested for other metals in Ross' waste stream. In that event, the Region agreed to develop a system-wide set

of metals feed rate limitations applicable to both chambers based on the trial burn results of feeding metals into the kiln.

The approved trial burn plan was submitted by Ross on November 26, 1991, and a report of the results of the trial burn was submitted on June 5, 1992. Ross itself admits that the "trial burn results show that there is no statistical difference in removal efficiencies between the rotary kiln and the main chamber." Petition at 12. In light of these results, the Region concluded that without an additional trial burn (which the Region suggested and Ross rejected), Ross could not ensure that the worst case feed location for metals was the kiln rather

than the main chamber. The Region, therefore, established a separate set of metals feed rate limitations for each chamber of the facility.

Ross appealed.

II. *DISCUSSION*

Under the rules governing this proceeding, the Regional Administrator's permit decision ordinarily will not be reviewed unless it is based on a clearly erroneous finding of fact or conclusions of law, or involves an important matter of policy or exercise of discretion that warrants review. *See* 40 C.F.R. § 124.19; 45 Fed. Reg. 33,412 (May 19, 1980). The preamble to section 124.19 states that "this power of review should only be sparingly exercised," and that "most permit conditions should be finally determined at the Regional level * * *." *Id*. The burden of demonstrating that review is warranted is on the petitioner. *See In re Metalworking Lubricants Company*, RCRA Appeal No. 93-4, at 3 (EAB, Mar. 21, 1994); *In re Amoco Oil Company, Mandan, North Dakota Refinery*, RCRA Appeal No. 92-21, at 4 (EAB, Nov. 23, 1993). For the reasons set forth below, we conclude that Ross has not carried its burden in this case.

Ross contends first that the Region was required under the trial burn plan to establish a set of system-wide feed rate limitations applicable to both the kiln and the main chamber based on the results of the trial burn. Ross argues, therefore, that it was clear error for the Region to deviate from the procedures contemplated in the approved trial burn plan and include separate feed rate limitations for each combustion chamber of the facility (*i.e.*, the kiln and the main chamber). For the following reasons, however, we believe that the Region's decision to include separate feed rate limitations is not clearly erroneous.

As a condition to the Region's approval of the trial burn plan, Ross was required to demonstrate through the trial burn that the kiln is the worst feed location. Petition at 11; Trial Burn Plan at D1-32 ("Lead and Chromium will be fed to the main chamber during Test Condition #1 to assure the kiln is 'worst case' for metals combustion."). By Ross' own admission, the trial burn showed that the metals removal efficiency resulting when waste is fed into the kiln is statistically equivalent to the metals removal efficiency resulting when waste is fed into the

main chamber. Petition at 12. [2] Ross claims that these results demonstrate that the kiln is the worst feed location. It is not clear to us, however, how the statistical equivalence of the results for the two combustion chambers demonstrates that one is the worst feed location, and Ross makes no effort to explain its reasoning. [3] Ross does cite other considerations, independent of the trial burn results, in support of its position, but it makes no effort to reconcile these considerations with the results of the trial burn. We also note that the Region offered Ross the option of conducting a second trial burn to demonstrate that the kiln is the worst feed location for metals other than lead and chromium, but Ross rejected the opportunity. Under the circumstances, we cannot fault the Region for concluding that the trial burn results do not demonstrate that the kiln is the worst feed location for metals. Review of this issue is therefore denied.

Ross also challenges the methodology used by the Region to arrive at the specific metal feed rate limitations in the permit, calling that methodology "flawed," "inappropriate and scientifically unsupportable" (Petition at 13). More specifically, Ross objects to the fact that many of the permit limitations for the main chamber were *not* based on measured results from the trial burn. Although Ross is correct in this regard, this approach was necessary because the only metals fed into the main chamber during the trial burn were lead and chromium. Consequently, the trial burn provided actual test data on metals combustion in the main chamber for those metals only. For all of the other metals, the Region used Adjusted Tier I limits as a basis for the main chamber limitations. [4] In addition, with respect to the

---

[2] While the removal efficiencies of the kiln and main chamber may be *statistically* equivalent, the actual figures produced by the test indicate that the removal efficiency of the main chamber is slightly lower than the removal efficiency of the kiln.

[3] Perhaps Ross believes that either chamber can be considered the "worst" feed location, on the theory that it simply makes no difference which chamber is used to set system wide feed rate limitations because there is no statistically significant difference between the relative removal efficiencies of the two chambers. Ross, however, does not make this argument. Moreover, the Region states that its agreement to the trial burn plan was based on its understanding that one chamber could qualify as the "worst feed location" only if its removal efficiency was *lower* than that of the other chamber, not just statistically equivalent to it. Region's Response to Petition at 11 ("U.S. EPA never agreed to accept metal feed limitations for the main chamber based on Ross' demonstration that the kiln and main chamber were statistically equivalent.") Because we believe that the Region's reading of the word "worst" is the more plausible, we conclude that the Region is not bound by the trial burn plan to establish system-wide limits.

[4] Adjusted Tier I feed rate screening limits are the Tier I limits adjusted to reflect site-specific dispersion modeling:

> The owner or operator may adjust the feed rate screening limits provided by appendix I of this part to account for site specific dispersion modeling . Under

(continued...)

main chamber limitations for arsenic, cadmium, antimony and mercury, the Region modified these Adjusted Tier I limits to reflect the estimated removal efficiencies of the facility's pollution control equipment. To estimate such removal efficiencies, the Region consulted the Agency's "Guidance on Metals and Hydrogen Chloride Controls for Hazardous Waste Incinerators" (August 1989).

Ross believes this methodology was flawed for two reasons. First, it was not "reflective of the procedures agreed to by the parties in the approved Trial Burn Plan." Petition at 13. The trial burn procedures referred to by Ross provided that five metals (antimony, arsenic, cadmium, hexavalent chromium, and lead) would be fed into the kiln during the trial burn. For each of the five metals fed into the kiln, the removal efficiency of the system would be measured. The removal efficiencies associated with the five metals would then provide the basis for establishing permit feed rate limitations for all ten toxic metals regulated under section 266.106 of the BIF rules. The permit feed rate limitations thus established would apply on a system-wide basis; that is, they would apply not only to the kiln, but to metals fed directly into the main chamber as well, on the assumption that the kiln is the worst feed location. Petition at 8. That the kiln is the worst feed location would be demonstrated by feeding chromium and lead to both the kiln and the main chamber and comparing the metals removal efficiency of the two chambers. Ross argues that the Region's methodology was defective because it failed to adhere to the above-described procedures.

As concluded earlier, however, the Region correctly declined to follow the above-described procedures when it set metals feed rate limitations for the permit; such procedures were based on the assumption that the kiln is the worst feed location, an assumption not borne out by the trial burn results. That the Region deviated from the procedures by refusing to base the main chamber feed rate limitations on the test data from the kiln, therefore, does not in and of itself suggest that the Region's methodology was defective in some way.

Second, Ross challenges the Region's methodology on the ground that the feed rate limitations yielded by that methodology are overly restrictive in light of the

---

[4](...continued)

> this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient level provided by appendices IV and V of this part using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

40 C.F.R. § 266.106(e).

test results of the trial burn. The language of the Ross' challenge, if read literally, encompasses *all* of the metal feed rate limitations in the permit; however, it is difficult to take such language at face value, for some of the feed rate limitations are based on the test results of the trial burn (specifically, the kiln limitations for arsenic, cadmium, chromium, antimony, and lead and the main chamber limitations for chromium and lead) and many of the feed rate limitations yielded by the Region's methodology (described above) are precisely the limits that Ross itself requested (specifically, all limits, whether or not based on trial burn results, relating to chromium, beryllium, antimony, barium, mercury, silver, and thallium). Letter from Karl E. Bremer, EPA, to James A. Heimbuch, Ross Environmental Services, Inc. (Dec. 22, 1992) (notice of final permit decision). If Ross' challenge does indeed encompass such limitations, then to that extent, it must be rejected, for we can discern nothing in the petition that would explain Ross' dissatisfaction with such limitations, and we will not speculate as to what the explanation might be. *See In re Broward County, Florida*, NPDES Appeal No. 92-11, at 19, n.31 (June 7, 1993) (Board will attempt to give meaning to issues raised by petitioner, but will not engage in sheer speculation). The burden was on Ross to provide such an explanation. 40 C.F.R. § 124.19(a).

Only two of the permit's limitations are neither based on the trial burn results nor equal to the limits that Ross itself requested, specifically the *main chamber* limitations for arsenic and cadmium. Letter from Karl E. Bremer, EPA, to James A. Heimbuch, Ross Environmental Services, Inc. (Dec. 22, 1992) (notice of final permit decision). However, we do not see, and Ross's petition does not provide, any reason to believe that these two feed rate limitations are overly restrictive or the product of a defective methodology. Indeed, the opposite conclusion is suggested by the fact that some of the limitations yielded by the Region's methodology are precisely the limits that Ross itself requested.

In sum, Ross' challenge to the Region's methodology in this case is fatally lacking in specifics. *See In re Genesee Power Station Limited Partnership*, PSD Appeal Nos. 93-1 through 93-7, at 42 (Oct. 22, 1993) (issues must be stated with sufficient specificity to identify aspect of permit being challenged and nature of challenge); *In re Terra Energy Ltd.*, UIC Appeal No. 92-3, at 3 (EAB, Aug. 5, 1992) (allegations of error are not enough; nature of error must be stated with specificity). Ross has failed to identify anything unreasonable or clearly erroneous in the Region's methodology or in the permit limitations yielded by that methodology. Review of this issue is therefore denied.

III. *CONCLUSION*

For all the foregoing reasons, we conclude that Ross has failed to carry its burden of demonstrating that the Region's decision to include the challenged permit conditions is based on a clear error of fact or law or an exercise of discretion or policy consideration that warrants review. Accordingly, we are denying review of Ross' petition.

So ordered.